

Nathanael Guigo

List of Publications by Year in descending order

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Version: 2024-02-01

81
papers

2,987
citations

136885

32
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175177

52
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82
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docs citations

82
times ranked

2438
citing authors

#	ARTICLE	IF	CITATIONS
1	Cross-Linking of Biobased Monofunctional Furan Epoxy Monomer by Two Steps Process, UV Irradiation and Thermal Treatment. <i>Macromolecular Chemistry and Physics</i> , 2023, 224, .	1.1	7
2	Monitoring the Degree of Carbonyl-Based Open Structure in a Furanic Macromolecular System. <i>Macromolecules</i> , 2022, 55, 1196-1204.	2.2	10
3	Furanic Humins from Biorefinery as Biobased Binder for Bitumen. <i>Polymers</i> , 2022, 14, 1019.	2.0	3
4	A proposal for enhanced microstructural development of Poly(ethylene 2,5-furandicarboxylate), PEF, upon stretching: On strain-induced crystallization and amorphous phase stability improvement. <i>Polymer</i> , 2022, 246, 124775.	1.8	5
5	Developing future visions for bio-plastics substituting PET – A backcasting approach. <i>Sustainable Production and Consumption</i> , 2022, 31, 370-383.	5.7	22
6	Conditions to Control Furan Ring Opening during Furfuryl Alcohol Polymerization. <i>Molecules</i> , 2022, 27, 3212.	1.7	8
7	Review of Wood Modification and Wood Functionalization Technologies. <i>Forests</i> , 2022, 13, 1004.	0.9	47
8	Cross-linking behavior of eutectic hardeners from natural acid mixtures. <i>Green Chemistry</i> , 2021, 23, 536-545.	4.6	6
9	Towards increased sustainability for aromatic polyesters: Poly(butylene 2,5-furandicarboxylate) and its blends with poly(butylene terephthalate). <i>Polymer</i> , 2021, 212, 123157.	1.8	13
10	A rigid plant oil-based thermoset with a furfural-derived cyclobutane cross-linker. <i>Green Chemistry</i> , 2021, 23, 8053-8060.	4.6	7
11	Non-Furanic Humins-Based Non-Isocyanate Polyurethane (NIPIU) Thermoset Wood Adhesives. <i>Polymers</i> , 2021, 13, 372.	2.0	14
12	Natural fibre composites with furanic thermoset resins. Comparison between polyfurfuryl alcohol and humins from sugar conversion. <i>Composites Part C: Open Access</i> , 2021, 4, 100109.	1.5	8
13	Unravelling the para- and ortho-benzene substituent effect on the glass transition of renewable wholly (hetero-)aromatic polyesters bearing 2,5-furandicarboxylic moieties. <i>European Polymer Journal</i> , 2021, 150, 110413.	2.6	10
14	Comparative Analysis of the Mechanical Behaviour of PEF and PET Uniaxial Stretching Based on the Time/Temperature Superposition Principle. <i>Polymers</i> , 2021, 13, 3295.	2.0	11
15	Spent Coffee Grounds as Property Enhancing Filler in a Wholly Bio-Based Epoxy Resin. <i>Macromolecular Materials and Engineering</i> , 2021, 306, .	1.7	9
16	Recommendations for replacing PET on packaging, fiber, and film materials with biobased counterparts. <i>Green Chemistry</i> , 2021, 23, 8795-8820.	4.6	77
17	Suberin from Cork as a Tough Cross-Linker in Bioepoxy Resins. <i>ACS Applied Polymer Materials</i> , 2021, 3, 6090-6101.	2.0	7
18	Biobased furanic derivatives for sustainable development. <i>Green Chemistry</i> , 2021, 23, 9721-9722.	4.6	5

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19	Cationic UV Curing of Bioderived Epoxy Furan-Based Coatings: Tailoring the Final Properties by In Situ Formation of Hybrid Network and Addition of Monofunctional Monomer. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 17403-17412.	3.2	17
20	Strain-induced crystallization of poly(ethylene 2,5-furandicarboxylate). Mechanical and crystallographic analysis. <i>Polymer</i> , 2020, 187, 122126.	1.8	16
21	Conformational Change Analysis of Poly(ethylene 2,5-furandicarboxylate) and Poly(ethylene Terephthalate). <i>Polymer</i> , 2020, 187, 122126.	2.2	25
22	Ambient Temperature Self-Blowing Tannin-Humins Biofoams. <i>Polymers</i> , 2020, 12, 2732.	2.0	15
23	A Perspective on PEF Synthesis, Properties, and End-Life. <i>Frontiers in Chemistry</i> , 2020, 8, 585.	1.8	110
24	Polymerization kinetic pathways of epoxidized linseed oil with aliphatic bio-based dicarboxylic acids. <i>Journal of Polymer Science</i> , 2020, 58, 1717-1727.	2.0	28
25	Eutectic hardener from food-based chemicals to obtain fully bio-based and durable thermosets. <i>Green Chemistry</i> , 2020, 22, 3104-3110.	4.6	14
26	Understanding of strain-induced crystallization developments scenarios for polyesters: Comparison of poly(ethylene furanoate), PEF, and poly(ethylene terephthalate), PET. <i>Polymer</i> , 2020, 203, 122755.	1.8	25
27	Humins based resin for wood modification and property improvement. <i>Green Chemistry</i> , 2020, 22, 2786-2798.	4.6	51
28	Investigation on the role of the alkyl side chain of cardanol on benzoxazine polymerization and polymer properties. <i>European Polymer Journal</i> , 2019, 119, 120-129.	2.6	30
29	Suberin/Trans-Cinnamaldehyde Oil Nanoparticles with Antimicrobial Activity and Anticancer Properties When Loaded with Paclitaxel. <i>ACS Applied Bio Materials</i> , 2019, 2, 3484-3497.	2.3	10
30	Kinetics and Chemorheological Analysis of Cross-Linking Reactions in Humins. <i>Polymers</i> , 2019, 11, 1804.	2.0	24
31	Thermal Properties of Biobased Polymers: Furandicarboxylic Acid (FDCA)-Based Polyesters. <i>Advances in Polymer Science</i> , 2019, , 189-217.	0.4	19
32	Crystallization of Polytetrafluoroethylene in a Wide Range of Cooling Rates: Nucleation and Diffusion in the Presence of Nanosilica Clusters. <i>Molecules</i> , 2019, 24, 1797.	1.7	15
33	'Green' composites prepared from polyfurfuryl alcohol and cork residues: Thermal and mechanical properties. <i>Composites Part A: Applied Science and Manufacturing</i> , 2019, 124, 105473.	3.8	20
34	All "green" composites comprising flax fibres and humins' resins. <i>Composites Science and Technology</i> , 2019, 171, 70-77.	3.8	39
35	Synthesis and characterization of two new biobased poly(pentylene Terephthalate) (PEPT) and poly(ethylene 2,5-furandicarboxylate) (PEF) based polyesters. <i>Polymer Degradation and Stability</i> , 2019, 160, 242-263.	2.7	21
36	Opening Furan for Tailoring Properties of Bio-based Poly(Furfuryl Alcohol) Thermoset. <i>ChemSusChem</i> , 2018, 11, 1805-1812.	3.6	41

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37	Biaxial Orientation of Poly(ethylene 2,5-furandicarboxylate): An Explorative Study. <i>Macromolecular Materials and Engineering</i> , 2018, 303, 1700507.	1.7	41
38	Tailored design of renewable copolymers based on poly(1,4-butylene 2,5-furandicarboxylate) and poly(ethylene glycol) with refined thermal properties. <i>Polymer Chemistry</i> , 2018, 9, 722-731.	1.9	49
39	Strain induced crystallization in biobased Poly(ethylene 2,5-furandicarboxylate) (PEF); conditions for appearance and microstructure analysis. <i>Polymer</i> , 2018, 158, 364-371.	1.8	27
40	Humins from Biorefineries as Thermoreactive Macromolecular Systems. <i>ChemSusChem</i> , 2018, 11, 4246-4255.	3.6	27
41	Chain Structure and Molecular Weight Dependent Mechanics of Poly(ethylene 2,5-furandicarboxylate) Compared to Poly(ethylene terephthalate). <i>Macromolecules</i> , 2018, 51, 8539-8549.	2.2	43
42	Thermal Analysis of Biobased Polymers and Composites. <i>Handbook of Thermal Analysis and Calorimetry</i> , 2018, , 399-429.	1.6	11
43	FA Polymerization Disruption by Protic Polar Solvents. <i>Polymers</i> , 2018, 10, 529.	2.0	25
44	Humins valorization: From well-defined properties to potential applications. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	2
45	Modelling the non-isothermal crystallization of polymers: Application to poly(ethylene Terephthalate). <i>Journal of Applied Polymer Science</i> , 2018, 133, 4611-4621.	1.2	38
46	Crystallization of Poly(butylene succinate) on Rapid Cooling and Heating: Toward Enhanced Nucleation by Graphene Nanosheets. <i>Journal of Physical Chemistry C</i> , 2017, 121, 11915-11925.	1.5	14
47	Further insights into the kinetics of thermal decomposition during continuous cooling. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 18836-18844.	1.3	25
48	Impact of Silica Nanoclusters on Furfuryl Alcohol Polymerization and Molecular Mobility. <i>Journal of Physical Chemistry C</i> , 2017, 121, 7485-7494.	1.5	6
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55	Glass transition dynamics and cooperativity length of poly(ethylene 2,5-furandicarboxylate) compared to poly(ethylene terephthalate). <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 16647-16658.	1.3	70
56	Fast Crystallization and Melting Behavior of a Long-Spaced Aliphatic Furandicarboxylate Biobased Polyester, Poly(dodecylene 2,5-furanoate). <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 5315-5326.	1.8	73
57	Morphology and thermal properties of novel clay-based poly(ethylene 2,5-furandicarboxylate) (PEF) nanocomposites. <i>RSC Advances</i> , 2016, 6, 59800-59807.	1.7	40
58	Isoconversional Kinetics by Fast Scanning Calorimetry. , 2016, , 237-257.		1
59	Copolymerization as a Strategy to Combine Epoxidized Linseed Oil and Furfuryl Alcohol: The Design of a Fully Bio-Based Thermoset. <i>ChemSusChem</i> , 2015, 8, 4149-4161.	3.6	40
60	Thermomechanical behavior of a novel biobased poly(furfuryl alcohol)/silica nanocomposite elaborated by smart functionalization of silica nanoparticles. <i>Polymer Degradation and Stability</i> , 2015, 118, 137-146.	2.7	12
61	Isothermal Crystallization Kinetics of Poly (Ethylene 2,5-Furandicarboxylate). <i>Macromolecular Materials and Engineering</i> , 2015, 300, 466-474.	1.7	115
62	Partial periodate oxidation and thermal cross-linking for the processing of thermoset-cellulose composites. <i>Composites Science and Technology</i> , 2015, 117, 54-61.	3.8	42
63	On the bio-based furanic polyesters: Synthesis and thermal behavior study of poly(octylene Tj ETQq1 1 0.784314 rgBT /Overlock 10 2015, 68, 115-127.	2.6	49
64	Synthesis, properties and thermal behavior of poly(decylene-2,5-furanoate): a biobased polyester from 2,5-furan dicarboxylic acid. <i>RSC Advances</i> , 2015, 5, 74592-74604.	1.7	57
65	Valorization of Biorefinery Side-Stream Products: Combination of Humins with Polyfurfuryl Alcohol for Composite Elaboration. <i>ACS Sustainable Chemistry and Engineering</i> , 2014, 2, 2182-2190.	3.2	85
66	Melt and glass crystallization of PDMS and PDMS silica nanocomposites. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 7830-7840.	1.3	109
67	Surface modification of cellulose microfibrils by periodate oxidation and subsequent reductive amination with benzylamine: a topochemical study. <i>Cellulose</i> , 2014, 21, 4119-4133.	2.4	80
68	Non-Isothermal Crystallization Kinetics of Biobased Poly(ethylene 2,5-furandicarboxylate) Synthesized via the Direct Esterification Process. <i>Macromolecular Chemistry and Physics</i> , 2014, 215, 2065-2074.	1.1	107
69	Nonisothermal Crystallization of Polytetrafluoroethylene in a Wide Range of Cooling Rates. <i>Journal of Physical Chemistry B</i> , 2013, 117, 3407-3415.	1.2	82
70	Crystallization Behaviour of Polytetrafluoroethylene over very Large Cooling Rate Domains. <i>Advanced Materials Research</i> , 2013, 747, 201-204.	0.3	0
71	Elaboration and Characterization of a Novel Biobased Poly(Furfuryl alcohol)/Silica Nanocomposite. <i>Advanced Materials Research</i> , 2013, 747, 657-659.	0.3	1
72	Complex Kinetic Pathway of Furfuryl Alcohol Polymerization Catalyzed by Green Montmorillonite Clays. <i>Journal of Physical Chemistry B</i> , 2012, 116, 8259-8268.	1.2	29

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73	Atypical gelation in gelatin solutions probed by ultra-fast calorimetry. <i>Soft Matter</i> , 2012, 8, 7116.	1.2	28
74	Gelation on Heating of Supercooled Gelatin Solutions. <i>Macromolecular Rapid Communications</i> , 2012, 33, 698-702.	2.0	15
75	Shear induced structuration of liquid crystalline epoxy thermosets. <i>European Polymer Journal</i> , 2010, 46, 1380-1387.	2.6	24
76	Eco-friendly composite resins based on renewable biomass resources: Polyfurfuryl alcohol/lignin thermosets. <i>European Polymer Journal</i> , 2010, 46, 1016-1023.	2.6	138
77	Innovative green nanocomposites based on silicate clays/lignin/natural fibres. <i>Composites Science and Technology</i> , 2009, 69, 1979-1984.	3.8	50
78	New insights on the thermal degradation pathways of neat poly(furfuryl alcohol) and poly(furfuryl) Tj ETQq0 0 0 rgBT/Overlock 10 Tf 50	2.7	70
79	Integral, differential and advanced isoconversional methods. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2009, 96, 219-226.	1.8	190
80	Molecular mobility and relaxation process of isolated lignin studied by multifrequency calorimetric experiments. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 1227.	1.3	27
81	Chemorheological analysis and model-free kinetics of acid catalysed furfuryl alcohol polymerization. <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 5359.	1.3	115